

IN THE SPECIFICATION

Please amend the Specification as follows:

[0001] This application is related to and is a continuation of allowed U.S. Patent Application  
Serial No. 09/971,072, filed 10/04/2001, entitled NEUROSURGICAL DEVICE FOR  
THERMAL THERAPY, which is related to and claims priority to U.S. Provisional Patent  
Application Serial No. 60/238,314, filed 10/05/00, entitled SYSTEMS AND METHODS FOR  
CONTROLLING TEMPERATURE OF BRAIN TISSUE, the entirety of all of which is are  
incorporated herein by reference.

[0017] FIG. 7 is a section view taken along section A—A 7-7 of FIG. 6;

[0027] In addition, an optional membrane 36 is provided in thermal communication with the  
contact member 26 or the thermal member 28. Membrane 36 can be constructed of any bio-  
compatible material and can be constructed to directly contact tissue.

[0032] The thermal cartridge 58 includes the exemplary elements as discussed above for  
applying thermal energy to a tissue site, for example, a contact member, a thermal member, and a  
cooling fan (not shown). In practice, the housing 48 is secured within a skull opening by  
screwing the radial threads into the bone. The thermal cartridge 58 is then inserted into the inner  
volume 50 of the housing 48 while aligning the axial slots 60 with the axial grooves [52] 54.  
The thermal cartridge 58 can be slidably adjusted within the insert housing 48 in order to  
specifically locate the contact member against the dura matter.

[0035] The surface area expansion element 62 can be provided by several different structures,  
including, for example, an inflatable plenum such as a bladder or balloon. Alternatively, the  
expansion element [48] 62 can include foldable, rollable, or compressible, ribbons or resilient  
thermally-conductive structures. Exemplary resilient materials include rubber, silicon, flexible  
polymers and other materials known in the art. Thus, the surface area expansion element 62 is